BRUHAT BANGALORE MAHANAGARA PALIKE

MEASUREMENT SHEET

RA 1ST AND FINAL BILL

Name of work: Improvements to Main Roads, Cross Roads and Drains in Ward No. 10 (Doddabommasandra).

Estimated Cost : Rs. 30.00 Lakhs

Head of Account : P-3726 Zonal Public Works - POW Works

Job Code: 0010-22-000004

Name of Agency: M/s. Sri Channakeshawa Enterprises, Prop: Kiran Gowda D, No. 882, 2nd Floor, Monika Nilaya, 13th Cross, Havanoor Extn, Nagasandra Post, Bengaluru - 560073.

Work order No: BMP/EE/BTP/WO/28/2022-23 D: 25-04-2022.

Measurements Recarded on : 21-06-2023

Sl No	Description	No.	L	B1	B2	Av.,B	D	Qty	Rate	Amount
1	Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by manual means without disturbing the base and stacking of the debris materials including cost of all labour charges complete as per specifications.								Sqm	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 01 to 02 is							1087.50	80.61	87663.00
2	Earthwork excavation by manual means for roads, drains and similar works in ordinary soil incolcing excavated surface leveled and isdes neatly dressed the disposed earth to be leveled neatly after breaking of clods complete as per specifications								Cum	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 03 to 04 is							228.38	185.73	42417.00
3	Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications.								Sqm	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 05 to 06 is							1087.50	5.37	5840.00
4	Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications.								Cum	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 07 to 08 is							217.50	1691.08	367810.00
5	Providing and applying primer coat with bitumen emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications.								Sqm	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 09 to 10 is							1087.50	28.66	31168.00
6	Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications.. MORTH Specification No. 507 -using 100/120 TPH capacity H.M.P. with sensor paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen								Cum	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 11 to 12 is							54.38	7221.13	392685.00

(Ward 13/10 DE)

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Sl No	Description	No.	L	B1	B2	Av.,B	D	Qty	Rate	Amount
7	Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications.								Sqm	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 13 to 14 is							**3358.00**	4.48	**15044.00**
8	Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.								Sqm	
	Qty Vide Item No. 07							3358.00		
								3358.00	10.75	**36099.00**
9	Providing and laying **bituminous concrete 40 mm thick** with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - **using 40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-30 Bitumen**								Cum	
	1st Cross Venkatagiriyappa Layout									
	From 2nd Cross G Krishna Murthy Layout to Venugopalaswamy Temple Road									
	0.00 to 15.00 Mtrs	1	15.00	6.50	6.00	6.25	0.04	3.75		
	15.00 to 30.00 Mtrs	1	15.00	6.00	6.20	6.10	0.04	3.66		
	30 to 48.50 Mtrs	1	18.50	6.20	6.70	6.45	0.04	4.77		
	0.00 to 19.00 Mtrs	1	19.00	7.20	6.35	6.78	0.04	5.15		
	19.00 to 34.00 Mtrs	1	15.00	5.60	5.20	5.40	0.04	3.24		
	34.00 to 49.00 Mtrs	1	15.00	5.20	5.80	5.50	0.04	3.30		
	49.00 to 64.00 Mtrs	1	15.00	5.80	6.30	6.05	0.04	3.63		
	64.00 to 79.00 Mtrs	1	15.00	6.30	5.30	5.80	0.04	3.48		
	79.00 to 94.00 Mtrs	1	15.00	5.30	5.30	5.30	0.04	3.18		
	94.00 to 109.00 Mtrs	1	15.00	5.30	4.50	4.90	0.04	2.94		
	109.00 to 124.00 Mtrs	1	15.00	4.50	4.15	4.33	0.04	2.60		
	124.00 to 139.00 Mtrs	1	15.00	4.15	4.30	4.23	0.04	2.54		
	139.00 to 154.00 Mtrs	1	15.00	4.30	4.20	4.25	0.04	2.55		
	154.00 to 169.00 Mtrs	1	15.00	4.20	4.25	4.23	0.04	2.54		
	169.00 to 184.00 Mtrs	1	15.00	4.25	4.70	4.48	0.04	2.69		
	184.00 to 190.10 Mtrs	1	6.10	4.70	6.50	5.60	0.04	1.37		
	3rd Cross Venkatagiriyappa Layout									
	Venugopalaswamy Temple Road to 1st Main Ro									
	0.00 to 15.00 Mtrs	1	15.00	5.80	4.50	5.15	0.04	3.09		
	15.00 to 30.00 Mtrs	1	15.00	4.50	4.10	4.30	0.04	2.58		
	30.00 to 45.00 Mtrs	1	15.00	4.10	4.20	4.15	0.04	2.49		
	45.00 to 60.00 Mtrs	1	15.00	4.20	3.70	3.95	0.04	2.37		
	60.00 to 75.00 Mtrs	1	15.00	3.70	4.50	4.10	0.04	2.46		
	75.00 to 90.00 Mtrs	1	15.00	4.50	3.65	4.08	0.04	2.45		
	90.00 to 105.00 Mtrs	1	15.00	3.65	4.10	3.88	0.04	2.33		
	105.00 to 119.00 Mtrs	1	14.00	4.10	4.00	4.05	0.04	2.27		
	119.00 to 134.00 Mtrs	1	15.00	5.00	4.40	4.70	0.04	2.82		
	134.00 to 147.50 Mtrs	1	13.50	4.40	5.20	4.80	0.04	2.59		
	From 1st main to SWD Drain									
	0.00 to 15.00 Mtrs	1	15.00	4.60	5.10	4.85	0.04	2.91		
	15.00 to 30.00 Mtrs	1	15.00	5.10	5.30	5.20	0.04	3.12		
	30.00 to 45.00 Mtrs	1	15.00	5.30	4.10	4.70	0.04	2.82		
	45.00 to 60.00 Mtrs	1	15.00	4.10	4.90	4.50	0.04	2.70		
	60.00 to 75.00 Mtrs	1	15.00	4.90	4.20	4.55	0.04	2.73		
	75.00 to 90.00 Mtrs	1	15.00	4.20	4.50	4.35	0.04	2.61		
	90.00 to 105.00 Mtrs	1	15.00	4.50	4.40	4.45	0.04	2.67		
	105.00 to 120.00 Mtrs	1	15.00	4.40	4.80	4.60	0.04	2.76		

E.E. (BTP. DIV)

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AEE (VRP) SD

Sl No	Description	No.	L	B1	B2	Av.,B	D	Qty	Rate	Amount
	120.00 to 137.10 Mtrs	1	17.10	4.80	3.80	4.30	0.04	2.94		
	Main Venkatagiriyappa Layout									
	From SWD Drain to 1st Cross Road									
	0.00 to 15.00 Mtrs	1	15.00	4.20	4.80	4.50	0.04	2.70		
	15.00 to 30.00 Mtrs	1	15.00	4.80	7.10	5.95	0.04	3.57		
	30.00 to 45.00 Mtrs	1	15.00	7.10	6.30	6.70	0.04	4.02		
	45.00 to 60.00 Mtrs	1	15.00	6.30	6.70	6.50	0.04	3.90		
	60.00 to 75.00 Mtrs	1	15.00	6.70	6.60	6.65	0.04	3.99		
	75.00 to 90.00 Mtrs	1	15.00	6.60	5.80	6.20	0.04	3.72		
	90.00 to 105.00 Mtrs	1	15.00	5.80	5.10	5.45	0.04	3.27		
	105.00 to 120.00 Mtrs	1	15.00	5.10	6.40	5.75	0.04	3.45		
	120.00 to 135.00 Mtrs	1	15.00	6.40	5.50	5.95	0.04	3.57		
	135.00 to 150.00 Mtrs	1	15.00	5.50	5.70	5.60	0.04	3.36		
	150.00 to 165.30 Mtrs	1	15.30	5.70	4.80	5.25	0.04	3.21		
	Deduction of Manholes									
	Manhole	-17	0.79	Area of Circle = (3.142*1.0*1.0)/4 = 0.79			0.04	-0.54		
	Chambers	-10	1.00			0.70	0.04	-0.28		
		Total Qty =						140.02		
		Qty Limited to Tender Qty =						134.32	8426.75	1131881.00

Assistant Engineer
New Ward No. 13

Assistant Executive Engineer
Vidyaranyapura Sub Division

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B.B.M.P, Bangalore - 97

Sl No	Description	No.	L	B1	B2	Av.,B	D	Qty	Rate	Amount
	Measurements Recarded on :		21-06-2023							
10	Road Marking with Hot Applied ThermoplasticCompound with Reflectrising Glass Beads on Bituminous Surface/Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications.								Sqm	
	1st Cross Venkatagiriyappa Layout									
	From 2nd Cross G Krishna Murthy Layout to Venugopalaswamy Temple Road									
	0.00 to 15.00 Mtrs	2	15.00			0.10		3.00		
	15.00 to 30.00 Mtrs	2	15.00			0.10		3.00		
	30 to 48.50 Mtrs	2	18.50			0.10		3.70		
	0.00 to 19.00 Mtrs	2	19.00			0.10		3.80		
	19.00 to 34.00 Mtrs	2	15.00			0.10		3.00		
	34.00 to 49.00 Mtrs	2	15.00			0.10		3.00		
	49.00 to 64.00 Mtrs	2	15.00			0.10		3.00		
	64.00 to 79.00 Mtrs	2	15.00			0.10		3.00		
	79.00 to 94.00 Mtrs	2	15.00			0.10		3.00		
	94.00 to 109.00 Mtrs	2	15.00			0.10		3.00		
	109.00 to 124.00 Mtrs	2	15.00			0.10		3.00		
	124.00 to 139.00 Mtrs	2	15.00			0.10		3.00		
	139.00 to 154.00 Mtrs	2	15.00			0.10		3.00		
	154.00 to 169.00 Mtrs	2	15.00			0.10		3.00		
	169.00 to 184.00 Mtrs	2	15.00			0.10		3.00		
	184.00 to 190.10 Mtrs	2	6.10			0.10		1.22		
	3rd Cross Venkatagiriyappa Layout									
	Venugopalaswamy Temple Road to 1st Main Roa									
	0.00 to 15.00 Mtrs	2	15.00			0.10		3.00		
	15.00 to 30.00 Mtrs	2	15.00			0.10		3.00		
	30.00 to 45.00 Mtrs	2	15.00			0.10		3.00		
	45.00 to 60.00 Mtrs	2	15.00			0.10		3.00		
	60.00 to 75.00 Mtrs	2	15.00			0.10		3.00		
	75.00 to 90.00 Mtrs	2	15.00			0.10		3.00		
	90.00 to 105.00 Mtrs	2	15.00			0.10		3.00		
	105.00 to 119.00 Mtrs	2	14.00			0.10		2.80		
	119.00 to 134.00 Mtrs	2	15.00			0.10		3.00		
	134.00 to 147.50 Mtrs	2	13.50			0.10		2.70		
	From 1st main to SWD Drain									
	0.00 to 15.00 Mtrs	2	15.00			0.10		3.00		
	15.00 to 30.00 Mtrs	2	15.00			0.10		3.00		
	30.00 to 45.00 Mtrs	2	15.00			0.10		3.00		
	45.00 to 60.00 Mtrs	2	15.00			0.10		3.00		
	60.00 to 75.00 Mtrs	2	15.00			0.10		3.00		
	75.00 to 90.00 Mtrs	2	15.00			0.10		3.00		
	90.00 to 105.00 Mtrs	2	15.00			0.10		3.00		
	105.00 to 120.00 Mtrs	2	15.00			0.10		3.00		
	120.00 to 137.10 Mtrs	2	17.10			0.10		3.42		
	1st Main Venkatagiriyappa Layout									
	From SWD Drain to 1st Cross Road									
	0.00 to 15.00 Mtrs	2	15.00			0.10		3.00		
	15.00 to 30.00 Mtrs	2	15.00			0.10		3.00		
	30.00 to 45.00 Mtrs	2	15.00			0.10		3.00		
	45.00 to 60.00 Mtrs	2	15.00			0.10		3.00		
	60.00 to 75.00 Mtrs	2	15.00			0.10		3.00		
	75.00 to 90.00 Mtrs	2	15.00			0.10		3.00		
	90.00 to 105.00 Mtrs	2	15.00			0.10		3.00		
	105.00 to 120.00 Mtrs	2	15.00			0.10		3.00		

AEE (VRP) SD

Sl No	Description	No.	L	B1	B2	Av.,B	D	Qty	Rate	Amount
	120.00 to 135.00 Mtrs	2	15.00			0.10		3.00		
	135.00 to 150.00 Mtrs	2	15.00			0.10		3.00		
	150.00 to 165.30 Mtrs	2	15.30			0.10		3.06		
		Total Qty =						137.70		
		Qty Limited to Tender Qty =						137.70	384.26	52913.00
	Sub Total									2163520.00
	GST @ 12%									259622.00
									Total	2423142.00

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